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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,000	12/09/2002	John C. Tsai	60617.301401	6676

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INTELLECTUAL PROPERTY LAW OFFICE  
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CAMPBELL, CA 95008

EXAMINER

LYONS, MICHAEL A

ART UNIT PAPER NUMBER

2877

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/066,000

Applicant(s)

TSAI ET AL.

Examiner

Michael A. Lyons

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

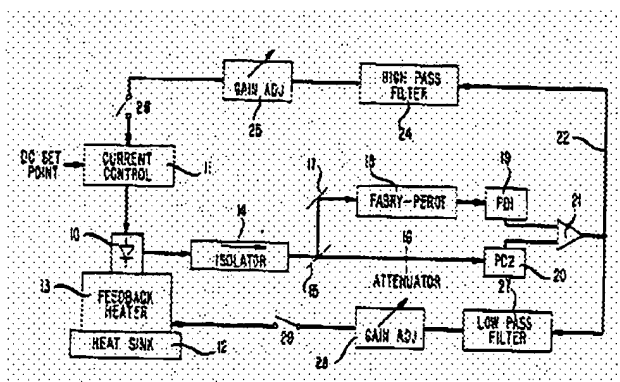
**DETAILED ACTION*****Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-3, 6, 8, and 10-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Brown et al (4,583,228).**



Regarding claim 1, Brown (Fig. 1) discloses a device for stabilizing and locking the frequency of a light beam from light source 10 comprising a first beam splitter 15 to separate a portion of the light as a sample beam, a confocal Fabry-Perot etalon 18 to receive the sample beam and generate a filterization beam, a photodetector 19 to receive this beam. This is then coupled to differential amplifier 21 that provides a signal to a feedback loop that ends at current control 11 to control the output of the laser based on the received signals.

Regarding claim 6, since Brown discloses the claimed apparatus in its entirety, the claimed method of the instant application flows from the use of the Brown apparatus.

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Regarding claim 12, the device disclosed in Figure 1 discloses the use of a confocal etalon 18.

As for claims 2, 3, 10, 11, 13, and 14, the confocal Fabry-Perot etalon of Brown includes “any interferometer which includes a pair of spaced, flat or *curved*, parallel mirrors so that interference fringes are produced by multiple reflection of light between the mirrors” (Col. 3, lines 20-25).

As for claim 8, Brown discloses current control 11.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 4-5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (4,583,228).**

As for claim 4, Brown fails to explicitly disclose the use of a system link and a processor. However, Brown discloses the use of a differential amplifier 21, high pass filter 24, and a gain adjustment element 25 to process the signal for current control 11 in an equivalent manner to a stand alone processor, while a system link between the elements is inherent to the device. Therefore, because the combined elements of Brown perform an equivalent function to a stand alone processor with a system link, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a processor for the multiple elements of Brown.

As for claim 5, Brown discloses a single beam splitter 15 that splits off a normalization beam from the input beam, and a normalization photodetector 20 that passes its signal on to differential amplifier 21.

Brown fails to disclose, however, a second beam splitter, links between elements, and a processor.

As for the second beam splitter, Brown does disclose a single beamsplitter 15 that serves to split the incoming beam into a measurement and reference beam. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a second beamsplitter to the device to perform the operation of a single beamsplitter, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As for the links and the processor, Brown discloses the use of a differential amplifier 21, high pass filter 24, and a gain adjustment element 25 to process the signal for current control 11 in an equivalent manner to a stand alone processor, while a system link between the elements is inherent to the device. Therefore, because the combined elements of Brown perform an

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equivalent function to a stand alone processor with a system link, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a processor for the multiple elements of Brown.


As for claims 7 and 9, since Brown discloses the claimed apparatus with its obvious modifications as discussed above with regard to claims 4 and 5, the claimed method of the instant application flows from the use of the modified Brown apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAL  
November 10, 2004



**Samuel A. Turner**  
Primary Examiner